Case 304 : Narrative

Case Vehicle (A): 2000 Chevrolet	Vehicle (B): 1978 Buick
Type: Metro, 4-door sedan	Type: LeSabre, 4-door sedan
Driver: 56-year-old male	Driver: 38-year-old female
CDC: 11-FDEW-2, 09-LZEW-2	CDC: 99-0000-0, 99-0000-0

SITUATION

1 2 On a rainy day, case vehicle (A) was traveling east at an unknown speed in the eastbound lane of a two-lane roadway that intersects with a two-lane north/south road. The roads were wet, it was dusk, and the speed limit was 55 mph (89 kph). Vehicle (B) was stopped facing south in the southbound lane of the intersecting road. The north/south road was equipped with a stop sign. 3 4 As case vehicle (A) entered the intersection, the driver of vehicle (B) also entered the intersection from a stop. The driver of case vehicle (A) braked, but was unable to avoid vehicle (B) as it proceeded across the eastbound lane. The front of case vehicle (A) struck the right side of vehicle (B). 5 After the impact, case vehicle (A) rotated clockwise and vehicle (B) rotated counterclockwise, causing the left rear of case vehicle (A) to strike the right rear of vehicle (B). Both vehicles were towed from the scene due to damage. The police reported "A" injuries for the driver of case vehicle (A). He was transported to a local hospital and then transferred to a trauma center. The driver of vehicle (B) sustained "C" injuries and was transferred to a local hospital.

GENERAL VEHICLE DAMAGE AND ESTIMATED CRASH SEVERITIES

6 7 8 The direct damage to case vehicle (A) began at the left-front bumper corner and extended 138 cm across the entire front of the vehicle. The maximum crush was 31 cm to the right portion of the front bumper. 9 The second impact began at the left-rear bumper corner and extended 113-cm forward along the panel and left-rear door panel. The maximum lateral crush to the quarter panel was 9 cm.

[10](#) [11](#) [12](#) [13](#) [14](#) [15](#) Using the Oldmiss crash-reconstruction program and c-values measured for case vehicle (A), the following impact severities were calculated for the front-to-side impact, and side-slap impacts, respectively:

Front-to-Side Impact

		Calculated Velocity Change - kph (mph)		
Vehicle	Variable	Total	Longitudinal	Latitudinal
case vehicle (A)	Oldmiss	45 (28)	-35 (-22)	29 (18)
vehicle (B)	Oldmiss	27 (17)	-18 (-11)	-21 (-13)

Side-Slap Impact

		Calculated Velocity Change - kph (mph)		
Vehicle	Variable	Total	Longitudinal	Latitudinal
case vehicle (A) side	EBS	7 (4)	0 (0)	7 (4)

DESCRIPTION OF DAMAGE TO CASE VEHICLE (A)

Exterior

[16](#) In the front, the bumper and grille area were damaged and pushed rearward into the engine compartment. [17](#) [18](#) [19](#) Both headlight assemblies were broken and the front end was shifted to the right. [20](#) The entire hood was crushed and pushed up and to the rear, and the rear edge of the hood was elevated but it did not contact the windshield. The damaged hood latch was jammed and both hood hinges were deformed but not separated. [21](#) There was no damage to the windshield from external sources.

[22](#) [23](#) On the left side, the front fender was deformed and moved slightly to the right. [24](#) [25](#) There was no damage to the left wheels, although the left wheelbase was reduced by 7

cm. The driver door was undamaged and operational and the left-side window glass was not broken. 26 27 The side-slap impact damaged the left-rear quarter panel and the rear portion of the left-rear door. 28 This impact also damaged the lower portion of the C-pillar, and the rear door was jammed closed, but the window glass was not damaged.

29 30 On the right side, the front fender was slightly deformed. There was no damage to the right wheels and no change in the right wheelbase. 31 There was no other damage to the right side of case vehicle (A). 32 There was also no damage to the rear of case vehicle (A).

Interior

33 This vehicle is equipped with steering-wheel and passenger frontal-impact airbags, which both deployed during the frontal impact. 34 There was no visible evidence of contact on the driver airbag skin, but there were bloodstains on the rear portion of the airbag skin. 35 36 37 38 The steering-wheel assembly was deflected to the left due to driver loading. There was no damage to the steering-wheel rim, and no rotation of the steering column. 39 40 There was no damage to the upper or mid portions of the driver instrument panel. 41 There was no residual damage to the driver knee bolster panel, but there were two scuff marks (11x4-cm, 8x2-cm) on the center portions of the knee-bolster panel, and the panel was dislodged from its mounts. 42 The toepan was slightly deformed and displaced to the rear. 43 There was no damage to the left portions of the headlining or roof structure. 44 There was a 3-x-3-cm scuff mark on the left A-pillar and a crack in the left side of the windshield from contact by the driver. 45 Also, the driver door panel was cracked and there was an 8-x-5-cm scuff mark forward of the window handle. 46 47 There was no damage to the center portions of the roof, the windshield header, or the center dash area. 48 49 50 Also, there was no damage to the right portions of roof, the windshield header, or the passenger frontal-impact airbag. 51 52 The plastic cover over the lower-back portion of the B-pillar was cracked. There was no other interior damage. 53 The following intrusion was noted and measured:

Location	Component	Distance (cm)	Direction
left front	toepan	5	to rear

OCCUPANT KINEMATICS AND INJURIES

54 The 5 ft, 6 in, 230 lb, 56-year-old male driver was *not* wearing the three-point belt and the steering-wheel airbag deployed. 55 56 57 58 There was no evidence of belt usage on the D-ring or belt webbing. The driver was reportedly braking with his right foot just before the crash.

During the frontal impact, the driver moved forward relative to the vehicle interior and into the airbag. 59 60 61 62 63 He sustained a non-displaced fracture of the left ulnar styloid and a comminuted fracture of the left distal radius, probably from the airbag flinging his left hand into the windshield, as indicated by cracks in the left-upper portion of the windshield. 64 65 66 67 Scuff marks on the knee bolster just above the brake pedal indicate that the driver's right knee contacted the bolster, but there were no injuries corresponding to this contact. He sustained a pylon fracture to the right distal fibula and an open, and comminuted fracture to the right distal tibia extending into the articular surface, with a 2-3 cm laceration and exposed bone, probably from foot contact with the brake pedal and/or toepan and braking.

68 During the left side impact, the driver moved to the left relative to the vehicle interior. His left leg probably contacted the side door panel, as evidenced by scuff marks and damage, but there were no injuries corresponding to this contact.

The following table 69 and attached drawing summarizes the injuries for the unbelted driver.

Occupant: Driver	Age: 56 years	Gender: Male
Restraints: 3-point belt ***not*** worn; airbag deployed	Stature: 168 cm (5 ft, 6 in)	Mass: 104 kg (230 lb)

Injury Description	A.I.S.	Injury Source		
		Definite	Probable	Possible
—	—			
Comminuted fracture, left distal radius	3	—	windshield (airbag fling)	—
Non-displaced fracture, left ulnar styloid	2	—	windshield (airbag fling)	—
Fracture, right distal fibula (pylon)	2	—	brake pedal/toepan (braking)	—
Open and comminuted fracture to right distal tibia extending into the articular surface, with a 2-3 cm laceration and exposed bone	3	—	brake pedal/toepan (braking)	—
Maximum A.I.S. Level	3	—	—	—
Injury Severity Score	9	—	—	—

CASE NO: 004-02
CASE VEHICLE: 2008 Chevrolet
TYPE: Sedan, 4-door sedan

OCCUPANT: (Driver) 28-year-old male
POSITION: 160 cm (5 ft 3 in); from ...; 166 kg (366 lb)
RESTRAINTS: 3-point belt (and worn; airbag deployed)
SEVERITY: delta V ...   DX - D ...

Comminuted fracture,
left distal radius
(1)

Fracture, right distal
fibula - pelvis
(2)

Open and comminuted fracture,
right distal tibia extending into the
vertical surface, with 2 x 2 cm
laceration and exposed bone
(3)

Case No.: 004-02
Vehicle No.: V1 2000 Chevrolet
Type: Matte, 4-door sedan
Time: 20 noon, day wide
Int. 05: 1876 Bunch LaSalace, 4-door sedan

Weather: Rain
Road Surface: Wet
Road Conditions: Asphalt
Light Condition: Dusk

NORTH

speed limit 55 mph
(89 kph)

speed limit 50 mph
(80 kph)
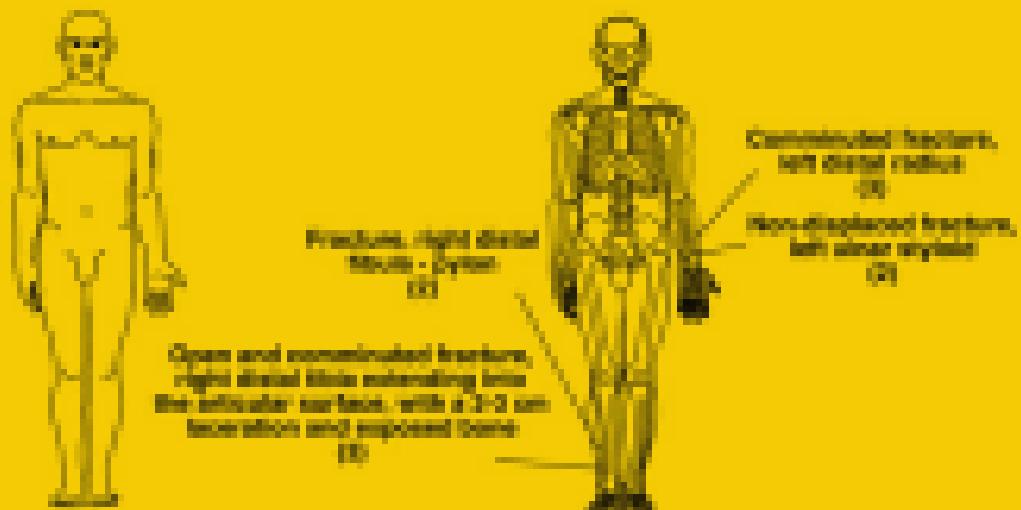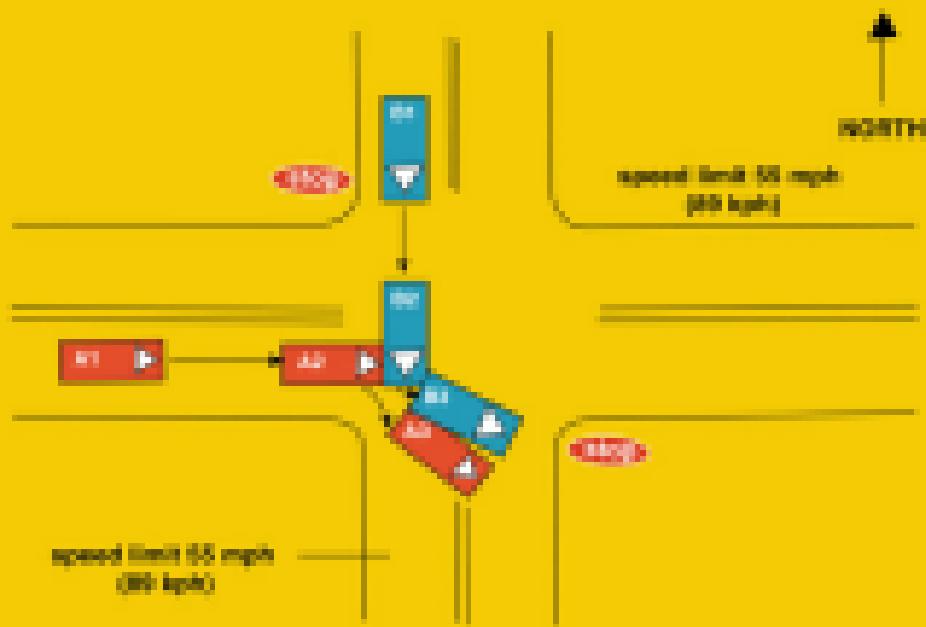
Vehicle Report

General

Conditions

Variable Number and Name	Code Value	Code Description	Other Options
V206 — Urban/Rural Area	2	Rural	more
V207 — Limited Access Highway	0	No	more
V208 — Road Total Lanes	2	2 lanes	more
V209 — Intersecting Road Total Lanes	2	2 lanes	more
V210 — Road Surface Type	1	Asphalt	more
V211 — Road Defects	0	No	more
V212 — Construction Zone	0	No	more
V213 — Road Alignment Vertical Plane	1	Level	more
V214 — Road Alignment Horizontal Plane	1	Straight	more
V215 — Surface Covering	22	Water - wet	more
V216 — Visibility Limitation	0	None	more
V217 — Visibility Obstruction	0	None	more
V218 — Speed Limit	6	86-90 km/h .. 55 mph	more
V219 — Precipitation Type	1	Rain	more
V220 — Precipitation Rate	9	Unknown	more
V221 — Temperature	9	Unknown	more
V222 — Crosswind	9	Unknown	more
V223 — Light Conditions	3	Dusk	more
V224 — Mechanical Malfunction Mention	0	No	more
V225 — Case Vehicle and Object	0	No	more
V226 — Case Vehicle Rollover	0	No	more

V227 — Case Vehicle Ran Off Roadway	0	No	[more](#)
V228 — Moving Case Vehicle/Contacted Moving Vehicle	1	Yes	[more](#)
V229 — Case Vehicle/Contacted Stopped Vehicle	0	No	[more](#)
V230 — Stopped Case Vehicle/Contactd Vehicle	0	No	[more](#)
V231 — Total Vehicles Hit By Case Vehicle	1	1 vehicle	[more](#)
V232 — Any Fire in Crash	0	No	[more](#)
V233 — Max Police Severity-PAR	3	A - Incapacitating Injury	[more](#)
V234 — Driver Alcohol Involvement	0	Had not been drinking	[more](#)
V235 — Driver Alcohol BAC	80	Not tested	[more](#)
V236 — Driver Impairment Mention	0	No	[more](#)
V237 — Driven/Towed From Scene	2	Towed Due to Damage	[more](#)

Other Vehicle

Variable Number and Name	Code Value	Code Description	Other Options
V301 — Other Vehicle VIN	4P69XBH42258	—	—
V302 — Other Vehicle Manufacturer/Body Code	11102	—	—
V303 — Other Vehicle Manufacturer	111	Buick	more
V304 — Other Vehicle Body Code	02	Large 115-124.9 inch wheelbase	more
V305 — Other Vehicle Make/Model	0441	Le Sabre	more
V306 — Other Vehicle Model Year	1978	—	—
V307 — Other Vehicle Mass	001592 kg	—	—
V308 — Other Vehicle Number	0	No separate report	more
V309 — Other Vehicle Number of Occupants	01	—	—
V310 — Other Vehicle Traveling Speed	995	Just starting up	more
V311 — Highest Police Injury Severity	1	C - Possible Injury	more
V312 — Other Vehicle Type	02	Large 115-124.9 inch wheelbase	more
V313 — Other Vehicle Wheelbase (cm)	294 cm	—	—
V314 — Average Track Width	999	Unknown	more
V315 — Overall Length	554 cm	—	—
V316 — Overall Width (OAW)	196 cm	—	—
V317 — Front Overhang (FOH)	112 cm	—	—
V318 — Rear Overhang (ROH)	152 cm	—	—
V319 — Undeformed End Width (UEW)	999	Unknown	more
V320 — Engine Displacement	9.9 l	—	—
V321 — Engine: Number of Cylinders	08	—	—
V322 — Direct Damage Length (DDL)	999	Unknown	more
V323 — Front-End Overlap % (FEO)	99	Missing or Not applicable	more
V324 — Vehicle Overlap % (VOL)	99	Missing or Not applicable	more

Case Vehicle

General

Variable Number and Name	Code Value	Code Description	Other Options
V401 — VIN	2C1MR5220Y67	—	—
V402 — Manufacturer/Body Code	21325	—	—
V403 — Vehicle Manufacturer	213	Chevrolet	more
V404 — Vehicle Body Code	25	—	—
V405 — Make/Model Code	0135	Geo Metro	more
V406 — Model Year	2000	—	—
V407 — Vehicle Mass	000900 kg	—	—
V408 — Odometer Reading	055507 miles	—	—
V409 — Number of Occupants	01	—	—
V410 — Traveling Speed	999	Unknown	more
V411 — Body Type	14	4-door sedan	more
V412 — Stolen Vehicle	8	Not currently collected	more
V413 — Body Structure	2	Unitized	more
V414 — Transmission Type	1	Automatic	more
V415 — Transmission Lever Location	2	Console	more
V416 — Steering	1	Power	more
V417 — Brakes	1	Power	more
V418 — Brake Type	2	Disc - front wheels	more
V419 — Brake Anti-lock Device	1	Two-wheel	more
V420 — Air Conditioning in Vehicle	8	Not currently collected	more
V421 — Drive Type	2	Front wheel	more
V422 — Dual Rear Wheels	0	No	more
V423 — Original Restraint System Type	3	Airbag	more

V424 — Equipped With Roll Bar	0	No	[more](#)
V425 — Roof Type	1	Solid	[more](#)
V426 — Wheelbase	237 cm	—	—
V427 — Anti-lacerative Glass	0	None	[more](#)
V428 — Average Track Width	138 cm	—	—
V429 — Overall Length	417 cm	—	—
V430 — Overall Width (OAW)	159 cm	—	—
V431 — Front Overhang	083 cm	—	—
V432 — Rear Overhang	099 cm	—	—
V433 — Undeformed End Width (UEW)	138 cm	—	—
V434 — Engine Displacement	1.8 l	—	—
V435 — Engine: Number of Cylinders	04	—	—
V436 — Direct Damage Length (DDL)	138 cm	—	—
V437 — Front End Overlap % (FEO)	99	Missing or Not applicable	[more](#)
V438 — Vehicle Overlap % (VOL)	99	Missing or Not applicable	[more](#)

Case Vehicle

Damage

Description

Variable Number and Name	Code Value	Code Description	Other Options
V501 — Maximum Crush - Front	031 cm	—	—
V502 — Maximum Crush - Right Side	000 cm	No crush (or less than 1 cm.)	more
V503 — Maximum Crush - Rear	000 cm	No crush (or less than 1 cm.)	more
V504 — Maximum Crush - Left Side	009 cm	—	—
V505 — Maximum Crush - Roof	000 cm	No crush (or less than 1 cm.)	more
V506 — Maximum Crush - Other	000 cm	No crush (or less than 1 cm.)	more
V507 — Are Events In Chronological Order	1	Yes	more
V508 — Event 1 Impact Location	1	On Roadway	more
V509 — Event 1 Impact Configuration	13	FRONT of case veh - SIDE of contacted Vehicle	more
V510 — Event 1 Object/Vehicle Contacted	02	Standard/full size	more
V511 — Event 2 Impact Location	1	—	—
V512 — Event 2 Impact Configuration	23	LEFT of case veh - SIDE of cont veh (no sideswipe)	more
V513 — Event 2 Object/Vehicle Contacted	02	Standard/full size	more
V514 — Event 3 Impact Location	8	No 3rd event	more
V515 — Event 3 Impact Configuration	88	No 3rd event	more
V516 — Event 3 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V517 — Event 4 Impact Location	8	No 4th event	more
V518 — Event 4 Impact Configuration	88	No 4th event	more
V519 — Event 4 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V520 — Event 5 Impact Location	8	No 5th event	more
V521 — Event 5 Impact Configuration	88	No 5th event	more
V522 — Event 5 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V523 — Event 6 Impact Location	8	No 6th event	more

V524 — Event 6 Impact Configuration	88	No 6th event		more
V525 — Event 6 Object/Vehicle Contacted	00	No object/vehicle contacted		more
V526 — Event 7 Impact On Road	8	No 7th event		more
V527 — Event 7 Impact Configuration	88	No 7th event		more
V528 — Event 7 Object/Vehicle Contacted	00	No object/vehicle contacted		more
V529 — Primary CDC Case Vehicle -event Number	1	Event 1		more
V530 — Primary CDC Case Vehicle - impact speed	999	Unknown		more
V531 — Primary CDC Case Vehicle - Estimated By	1	Investigator		more
V532 — Primary CDC Case Vehicle -crush	031	—		—
V533 — Primary CDC Case Vehicle -clock #1	11	11 o'clock		more
V534 — Primary CDC Case Vehicle letter 1 #1	06	F - Front		more
V535 — Primary CDC Case Vehicle letter 2 #1	04	D - Distributed (Side or End)		more
V536 — Primary CDC Case Vehicle letter 3 #1	05	E - Everything below belt line		more
V537 — Primary CDC Case Vehicle letter 4 #1	23	W - Wide impact area		more
V538 — Primary CDC Case Vehicle Extent #1	02	Extent 2		more
V539 — Primary CDC Case Vehicle -CDC #1	11FDEW2	—		—
V541 — Primary CDC Case Vehicle letter 1 #2	00	Missing Data/Not applicable		more
V542 — Primary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable		more
V543 — Primary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable		more
V544 — Primary CDC Case Vehicle letter 4 #2	00	Missing Data/Not applicable		more
V545 — Primary CDC Case Vehicle Extent #2	00	Missing Data/Not applicable		more
V546 — Primary CDC Case Vehicle -CDC #2	9800000	—		—
V547 — Primary CDC Contacted Vehicle - Impact Speed	999	Unknown		more
V548 — Primary CDC Contacted Vehicle - Estimated By	1	Investigator		more
V549 — Primary CDC Contacted Vehicle -crush	999	Unknown		more
V550 — Primary CDC Contacted Vehicle -clock #1	99	Unknown or no damage		more
V551 — Primary CDC Contacted Vehicle letter 1 #1	00	Missing Data/Not applicable		more
V552 — Primary CDC Contacted Vehicle letter 2 #1	00	Missing Data/Not applicable		more

V553 — Primary CDC Contacted Vehicle letter 3 #1	00	Missing Data/Not applicable	[more](#)
V554 — Primary CDC Contacted Vehicle letter 4 #1	00	Missing Data/Not applicable	[more](#)
V555 — Primary CDC Contacted Vehicle Extent #1	00	Missing Data/Not applicable	[more](#)
V556 — Primary CDC Contacted Vehicle -CDC #1	9900000	—	—
V558 — Primary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	[more](#)
V559 — Primary CDC Contacted Vehicle letter 2 #2	00	Missing Data/Not applicable	[more](#)
V560 — Primary CDC Contacted Vehicle letter 3 #2	00	Missing Data/Not applicable	[more](#)
V561 — Primary CDC Contacted Vehicle letter 4 #2	00	Missing Data/Not applicable	[more](#)
V562 — Primary CDC Contacted Vehicle Extent #2	00	Missing Data/Not applicable	[more](#)
V563 — Primary CDC Contacted Vehicle -CDC #2	9900000	—	—
V564 — Secondary CDC Case Vehicle - Event No	2	Event 1	[more](#)
V565 — Secondary CDC Case Vehicle - Impact Speed	999	Unknown	[more](#)
V566 — Secondary CDC Case Vehicle - Estimated By	1	—	—
V567 — Secondary CDC Case Vehicle -crush	009	—	—
V568 — Secondary CDC Case Vehicle -clock #1	09	9 o'clock	[more](#)
V569 — Secondary CDC Case Vehicle letter 1 #1	12	L - Left Side	[more](#)
V570 — Secondary CDC Case Vehicle letter 2 #1	26	Z - Side or end (B + P or R + C)	[more](#)
V571 — Secondary CDC Case Vehicle letter 3 #1	05	E - Everything below belt line	[more](#)
V572 — Secondary CDC Case Vehicle letter 4 #1	23	W - Wide impact area	[more](#)
V573 — Secondary CDC Case Vehicle Extent #1	02	Extent 2	[more](#)
V574 — Secondary CDC Case Vehicle -CDC #1	09LZEW2	—	—
V576 — Secondary CDC Case Vehicle letter 1 #2	00	Missing Data/Not applicable	[more](#)
V577 — Secondary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable	[more](#)
V578 — Secondary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable	[more](#)
V579 — Secondary CDC Case Vehicle letter 4 #2	00	Missing Data/Not applicable	[more](#)
V580 — Secondary CDC Case Vehicle Extent #2	00	Missing Data/Not applicable	[more](#)
V581 — Secondary CDC Case Vehicle -CDC #2	9800000	—	—
V582 — Secondary CDC Contacted Vehicle - Impact Speed	999	Unknown	[more](#)

V583 — Secondary CDC Contacted Vehicle - Estimated By	1	—	—
V584 — Secondary CDC Contacted Vehicle -crush	999	Unknown	[more](#)
V585 — Secondary CDC Contacted Vehicle -clock #1	99	Unknown or no damage	[more](#)
V586 — Secondary CDC Contacted Vehicle letter 1 #1	00	Missing Data/Not applicable	[more](#)
V587 — Secondary CDC Contacted Vehicle letter 2 #1	00	Missing Data/Not applicable	[more](#)
V588 — Secondary CDC Contacted Vehicle letter 3 #1	00	Missing Data/Not applicable	[more](#)
V589 — Secondary CDC Contacted Vehicle letter 4 #1	00	Missing Data/Not applicable	[more](#)
V590 — Secondary CDC Contacted Vehicle Extent #1	00	Missing Data/Not applicable	[more](#)
V591 — Secondary CDC Contacted Vehicle -CDC #1	9900000	—	—
V593 — Secondary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	[more](#)
V594 — Secondary CDC Contacted Vehicle letter 2 #2	00	Missing Data/Not applicable	[more](#)
V595 — Secondary CDC Contacted Vehicle letter 3 #2	00	Missing Data/Not applicable	[more](#)
V596 — Secondary CDC Contacted Vehicle letter 4 #2	00	Missing Data/Not applicable	[more](#)
V597 — Secondary CDC Contacted Vehicle Extent #2	00	Missing Data/Not applicable	[more](#)
V598 — Secondary CDC Contacted Vehicle -CDC #2	9900000	—	—

Crash Severity

Variable Number and Name	Code Value	Code Description	Other Options
V601 — Case Vehicle Primary Impact Number	1	—	—
V602 — Primary Impact Total Delta-V	045 kph	—	—
V603 — Primary Case Vehicle Reconstructed Longitudinal Delta-V	-035 kph	—	—
V604 — Primary Case Vehicle Reconstructed Lateral Delta-V	0029 kph	—	—
V605 — Primary Case Vehicle Reconstructed Crush Energy	0217 kJ	—	—
V606 — Primary Impact Case Vehicle - reconstuction	22	Reconstructed, moderate confidence level	more
V607 — Primary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	more
V608 — Primary Contacted Vehicle Reconstructed Total Delta-V	027 kph	—	—
V609 — Primary Contacted Vehicle Reconstructed Longitudinal Delta-V	-018 kph	—	—
V610 — Primary Contacted Vehicle Reconstructed Lateral Delta-V	-021 kph	—	—
V611 — Primary Contacted Vehicle Reconstructed Crush Energy	0297 kJ	—	—
V612 — Case Vehicle Secondary Impact Number	2	—	—
V613 — Secondary Case Vehicle Reconstructed Total Delta-V	007 kph	—	—
V614 — Secondary Case Vehicle Reconstructed Longitudinal Delta-V	0000 kph	—	—
V615 — Secondary Case Vehicle Reconstructed Lateral Delta-V	0007 kph	—	—
V616 — Secondary Case Vehicle Reconstructed Crush Energy	0049 kJ	—	—
V617 — Secondary Case Vehicle Reconstruction Note	22	Reconstructed, moderate confidence level	more
V618 — Secondary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	more

V619 — Secondary Contacted Vehicle Reconstructed Total Delta-V	888	N/A	[more](#)
V620 — Secondary Contacted Vehicle Reconstructed Longitudinal Delta-V	8888	—	—
V621 — Secondary Contacted Vehicle Reconstructed Lateral Delta-V	8888	—	—
V622 — Secondary Contacted Vehicle Reconstructed Crush Energy	8888	—	—
V623 — Case Vehicle Primary Impact Number	1	—	—
V624 — Primary Case Vehicle Reconstructed Total EBS	045 kph	—	—
V625 — Primary Case Vehicle Reconstructed Longitudinal EBS	-035 kph	—	—
V626 — Primary Case Vehicle Reconstructed Lateral EBS	0029 kph	—	—
V627 — Primary Case Vehicle Reconstructed Crush Energy	0217 kJ	—	—
V628 — Primary Case Vehicle Reconstruction Note	22	Reconstructed, moderate confidence level	[more](#)
V629 — Primary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	[more](#)
V630 — Primary Contacted Vehicle Reconstruction Total EBS	027 kph	—	—
V631 — Primary Contacted Vehicle Reconstruction Longitudinal EBS	-018 kph	—	—
V632 — Primary Contacted Vehicle Reconstruction Lateral EBS	-021 kph	—	—
V633 — Primary Contacted Vehicle Reconstruction Crush Energy	0297 kJ	—	—
V634 — Case Vehicle Secondary Impact Number	2	—	—
V635 — Secondary Case Vehicle Reconstruction Total EBS	007 kph	—	—
V636 — Secondary Case Vehicle Reconstruction Longitudinal EBS	0000 kph	—	—
V637 — Secondary Case Vehicle Reconstruction Lateral EBS	0007 kph	—	—
V638 — Secondary Case Vehicle Reconstruction Crush Energy	0049 kJ	—	—
V639 — Secondary Case Vehicle	22	Reconstructed, moderate	[more](#)

Reconstruction Note		confidence level	
V640 — Secondary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	more
V641 — Secondary Contacted Vehicle Reconstruction Total EBS	888	N/A	more
V642 — Secondary Contacted Vehicle Reconstruction Longitudinal EBS	8888	—	—
V643 — Secondary Contacted Vehicle Reconstruction Lateral EBS	8888	—	—
V644 — Secondary Contacted Vehicle Reconstruction Crush Energy	8888	—	—
V645 — Case Vehicle Reconstructed Impact Number	1	—	—
V646 — Case Vehicle Impact 1 Plane	1	Bumper	more
V647 — Case Vehicle Impact 1 Direct Damage Length [DDL]	138 cm	—	—
V648 — Case Vehicle Impact 1 Max Crush	031 cm	—	—
V649 — Case Vehicle Impact 1 Field-L	125 cm	—	—
V650 — Case Vehicle Impact 1 C1	030 cm	—	—
V651 — Case Vehicle Impact 1 C2	028 cm	—	—
V652 — Case Vehicle Impact 1 C3	028 cm	—	—
V653 — Case Vehicle Impact 1 C4	029 cm	—	—
V654 — Case Vehicle Impact 1 C5	031 cm	—	—
V655 — Case Vehicle Impact 1 C6	000 cm	No Crush	more
V656 — Case Vehicle Impact 1 +/- D	0000 cm	—	—
V657 — Case Vehicle Reconstructed Impact Number	2	—	—
V658 — Case Vehicle Impact 2 Plane	4	Above sill	more
V659 — Case Vehicle Impact 2 Direct Damage Length [DDL]	113 cm	—	—
V660 — Case Vehicle Impact 2 Max Crush	009 cm	—	—
V661 — Case Vehicle Impact 2 Field-L	147 cm	—	—
V662 — Case Vehicle Impact 2 C1	000 cm	No Crush	more
V663 — Case Vehicle Impact 2 C2	009 cm	—	—
V664 — Case Vehicle Impact 2 C3	002 cm	—	—

V665 — Case Vehicle Impact 2 C4	001 cm	—	—
V666 — Case Vehicle Impact 2 C5	000 cm	No Crush	more
V667 — Case Vehicle Impact 2 C6	000 cm	No Crush	more
V668 — Case Vehicle Impact 2 +/- D	-141 cm	—	—
V669 — Other Vehicle Reconstructed Impact Number	1	—	—
V670 — Other Vehicle Impact 1 Plane	9	Unknown	more
V671 — Other Vehicle Impact 1 Direct Damage Length [DDL]	999	Unknown	more
V672 — Other Vehicle Impact 1 Max Crush	999	Unknown	more
V673 — Other Vehicle Impact 1 Field-L	999	Unknown	more
V674 — Other Vehicle Impact 1 C1	999	Unknown	more
V675 — Other Vehicle Impact 1 C2	999	Unknown	more
V676 — Other Vehicle Impact 1 C3	999	Unknown	more
V677 — Other Vehicle Impact 1 C4	999	Unknown	more
V678 — Other Vehicle Impact 1 C5	999	Unknown	more
V679 — Other Vehicle Impact 1 C6	999	Unknown	more
V680 — Other Vehicle Impact 1 +/- D	0999 cm	—	—
V681 — Other Vehicle Reconstructed Impact Number	2	—	—
V682 — Other Vehicle Impact 2 Plane	9	Unknown	more
V683 — Other Vehicle Impact 2 Direct Damage Length [DDL]	999	Unknown	more
V684 — Other Vehicle Impact 2 Max Crush	999	Unknown	more
V685 — Other Vehicle Impact 2 Field-L	999	Unknown	more
V686 — Other Vehicle Impact 2 C1	999	Unknown	more
V687 — Other Vehicle Impact 2 C2	999	Unknown	more
V688 — Other Vehicle Impact 2 C3	999	Unknown	more
V689 — Other Vehicle Impact 2 C4	999	Unknown	more
V690 — Other Vehicle Impact 2 C5	999	Unknown	more
V691 — Other Vehicle Impact 2 C6	999	Unknown	more
V692 — Other Vehicle Impact 2 +/- D	0999 cm	—	—

Case Vehicle

Tires & Rims

Variable Number and Name	Code Value	Code Description	Other Options
V701 — Left Front Wheel Damaged	0	No	[more](#)
V702 — Right Front Wheel Damaged	0	No	[more](#)
V703 — Right Rear Wheel Damaged	0	No	[more](#)
V704 — Left Rear Wheel Damaged	0	No	[more](#)
V705 — Left Front Tire Tread Type	4	All Weather	[more](#)
V706 — Right Front Tire Tread Type	4	All Weather	[more](#)
V707 — Right Rear Tire Tread Type	4	All Weather	[more](#)
V708 — Left Rear Tire Tread Type	4	All Weather	[more](#)
V709 — Left Front Carcass Construction	3	Radial	[more](#)
V710 — Right Front Carcass Construction	3	Radial	[more](#)
V711 — Right Rear Carcass Construction	3	Radial	[more](#)
V712 — Left Rear Carcass Construction	3	Radial	[more](#)
V717 — Left Front Tire Size	9999999999	—	—
V718 — Right Front Tire Size	9999999999	—	—
V719 — Right Rear Tire Size	9999999999	—	—
V720 — Left Rear Tire Size	9999999999	—	—

Case Vehicle

Fuel, Tank, Fire

Variable Number and Name	Code Value	Code Description	Other Options
V801 — Propulsive Fuel Type	1	Gasoline	[more](#)
V802 — Main Tank Location	322	Within frame/centered laterally - within vertically	[more](#)
V803 — Main Filler Cap Location	113	Left of frame laterally - above vertically	[more](#)
V804 — Main Tank Material	9	Unknown	[more](#)
V805 — Aux Tank Type	8	Not applicable (not equipped)	[more](#)
V806 — Aux Tank Location	888	Not applicable (not equipped)	[more](#)
V807 — Aux Filler Cap Location	888	Not applicable (not equipped)	[more](#)
V808 — Aux Tank Material	8	Not applicable	[more](#)
V901 — Fuel Leakage From Crash	0	No	[more](#)
V1001 — Fire In Or On Case Vehicle	0	No	[more](#)

Case Vehicle

Exterior

Variable Number and Name	Code Value	Code Description	Other Options
V1101 — Hood Latch Released	0	No	more
V1102 — Hood Latch Damaged	1	Yes	more
V1103 — Hood Latch Jammed	1	Yes	more
V1104 — Left Hood Hinge Damaged	1	Yes	more
V1105 — Left Hood Hinge Separated	0	No	more
V1106 — Right Hood Hinge Damaged	1	Yes	more
V1107 — Right Hood Hinge Separated	0	No	more
V1108 — Hood Remained On Vehicle	1	Yes	more
V1109 — Rear Hood Edge Elevated	1	Yes	more
V1110 — Edge Contacted Windshield	0	No	more
V1111 — Edge Penetrated Windshield	8	Not applicable	more
V1112 — Hood Latch Location	1	Front of Vehicle	more
V1113 — Eng/Transmissn Mount Separation	0	No	more
V1114 — Steerng Column Flex Coupling	9	Unknown if equipped	more
V1115 — Steerng Column Coupling Damaged	9	Unknown	more
V1116 — Steerng Column Coupling Separated	9	Unknown	more
V1117 — Eng Comp Telescopng Unit	88	Not collected	more
V1118 — Comp Orig/Telescopd Diff	888	Not collected	more
V1119 — Left Side Body Mount Separation	8	Not applicable (unitized)	more
V1120 — Upper Left A-pillar Separation	0	No	more
V1121 — Lower Left A-pillar Separation	0	No	more
V1122 — Upper Left B-pillar Separation	0	No	more
V1123 — Lower Left B-pillar Separation	0	No	more
V1124 — Upper Left C-pillar Separation	0	No	more

V1125 — Lower Left C-pillar Separation	4	No separation, but damaged	[more](#)
V1126 — Upper Left D-pillar Separation	8	Not applicable (not equipped)	[more](#)
V1127 — Lower Left D-pillar Separation	8	Not applicable (not equipped)	[more](#)
V1128 — Left Front Door Opening Cause	0	Door did not open	[more](#)
V1129 — Left Rear Door Opening Cause	0	Door did not open	[more](#)
V1130 — Left Front Door Jammed Closed	0	No	[more](#)
V1131 — Left Rear Door Jammed Closed	1	Yes	[more](#)
V1132 — Rear Door Type	0	No door (includes pickups)	[more](#)
V1133 — Rear Door Opening Cause	8	Not applicable (no rear door)	[more](#)
V1134 — Rear Door Jammed Closed	8	Not applicable (no rear door)	[more](#)
V1135 — Luggage Partition Damagd	8	Not applicable	[more](#)
V1136 — Spare Tire Status	8	Not collected	[more](#)
V1137 — Trailer Hitch Type	0	No hitch	[more](#)
V1138 — Trailer Type	0	No trailer	[more](#)
V1139 — Right Side Body Mount Separation	8	Not applicable (unitized)	[more](#)
V1140 — Upper Right A-pillar Separation	0	No	[more](#)
V1141 — Lower Right A-pillar Separation	0	No	[more](#)
V1142 — Upper Right B-pillar Separation	0	No	[more](#)
V1143 — Lower Right B-pillar Separation	0	No	[more](#)
V1144 — Upper Right C-pillar Separation	0	No	[more](#)
V1145 — Lower Right C-pillar Separation	0	No	[more](#)
V1146 — Upper Right D-pillar Separation	8	Not applicable (not equipped)	[more](#)
V1147 — Lower Right D-pillar Separation	8	Not applicable (not equipped)	[more](#)
V1148 — Right Front Door Opening Cause	00	Door did not open	[more](#)
V1149 — Right Rear Door Opening Cause	00	Door did not open	[more](#)
V1150 — Right Front Door Jammed Closed	0	No	[more](#)
V1151 — Right Rear Door Jammed Closed	0	No	[more](#)
V1152 — Van Rear Door Type	8	Not applicable (not a van)	[more](#)
V1153 — Windshield Cracked		Yes	[more](#)
V1154 — Windshield Broken	0	No	[more](#)

V1155 — Windshield Cracked or Broken by Occupant	1	Yes	[more](#)
V1156 — Bond Separation Extent	0	None	[more](#)
V1157 — Windshield Code		—	—
V1158 — Did Sun/T Roof Open	8	Not Applicable	[more](#)

Case Vehicle

Steering

Column/Rim

Variable Number and Name	Code Value	Code Description	Other Options
V1201 — Steering Wheel Rim Damage	1	Deformed slightly	more
V1202 — Number of Steering Wheel Spokes	4	4 spokes	more
V1203 — Steering Wheel Spoke Damage	1	Deformed slightly	more
V1204 — Column Tilt Feature	0	Not equipped	more
V1205 — Column Swing-away Feature	0	Not equipped	more
V1206 — Column Telescoping Feature	0	Not equipped	more
V1207 — Wheel Energy Absorb Device	8	Not collected	more
V1208 — Wheel Ea Orig/Damaged Diff	888	Not collected	more
V1209 — Column Energy Absorb Device	88	Not collected	more
V1210 — Column Ea Orig/Comprss Diff	888	Not collected	more
V1211 — Shear Capsule Separation	888	Not collected	more
V1212 — Column Vertical Rotation	0	No apparent rotation	more
V1213 — Column Lateral Rotation	0	No apparent rotation	more
V1214 — Steering Wheel Hub Damage	1	Occupant contact	more

Case Vehicle

Intrusion

Variable Number and Name	Code Value	Code Description	Other Options
V1301 — Occupant Compartment Intrusion	1	Yes	more
V1302 — Was Intrusion Catastrophic	0	No	more
V1303 — Intrusion Number 01	01	Intrusion #1	more
V1304 — Intrusion 01 Occupant Space Number	11	First row, Left seat	more
V1305 — Intrusion 01 Intruding Object	03	Toe pan	more
V1306 — Intrusion 01 Assoc Event Number	1	Event #1	more
V1307 — Intrusion 01 Max Intrusion X-axis	05 cm	—	—
V1308 — Intrusion 01 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1309 — Intrusion 01 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1310 — Intrusion 01 Occupant Number	01	Occupant number 1, contact	more
V1311 — Intrusion 01 Injury Number	03	Injury #3	more
V1312 — Intrusion 01 Occupant Number	01	Occupant number 1, contact	more
V1313 — Intrusion 01 Injury Number	04	Injury #4	more
V1314 — Intrusion Number 02	00	No Intrusion, None	more
V1315 — Intrusion 02 Occupant Space Number	00	No Intrusion, None	more
V1316 — Intrusion 02 Intruding Object	00	No Intrusion, None	more
V1317 — Intrusion 02 Assoc Event Number	0	No Intrusion, None	more
V1318 — Intrusion 02 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1319 — Intrusion 02 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1320 — Intrusion 02 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1321 — Intrusion 02 Occupant Number	00	No contact or no intrusion	more
V1322 — Intrusion 02 Injury Number	00	No injury or no intrusion	more
V1323 — Intrusion 02 Occupant Number	00	No contact or no intrusion	more
V1324 — Intrusion 02 Injury Number	99	Contact, injury unknown or data not collected	more

V1325 — Intrusion Number 03	00	No Intrusion, None	more
V1326 — Intrusion 03 Occupant Space Number	00	No Intrusion, None	more
V1327 — Intrusion 03 Intruding Object	00	No Intrusion, None	more
V1328 — Intrusion 03 Assoc Event Number	0	No Intrusion, None	more
V1329 — Intrusion 03 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1330 — Intrusion 03 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1331 — Intrusion 03 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1332 — Intrusion 03 Occupant Number	00	No contact or no intrusion	more
V1333 — Intrusion 03 Injury Number	00	No injury or no intrusion	more
V1334 — Intrusion 03 Occupant Number	00	No contact or no intrusion	more
V1335 — Intrusion 03 Injury Number	99	Contact, injury unknown or data not collected	more
V1336 — Intrusion Number 04	00	No Intrusion, None	more
V1337 — Intrusion 04 Occupant Space Number	00	No Intrusion, None	more
V1338 — Intrusion 04 Intruding Object	00	No Intrusion, None	more
V1339 — Intrusion 04 Assoc Event Number	0	No Intrusion, None	more
V1340 — Intrusion 04 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1341 — Intrusion 04 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1342 — Intrusion 04 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1343 — Intrusion 04 Occupant Number	00	No contact or no intrusion	more
V1344 — Intrusion 04 Injury Number	00	No injury or no intrusion	more
V1345 — Intrusion 04 Occupant Number	00	No contact or no intrusion	more
V1346 — Intrusion 04 Injury Number	99	Contact, injury unknown or data not collected	more
V1347 — Intrusion Number 05	00	No Intrusion, None	more
V1348 — Intrusion 05 Occupant Space Number	00	No Intrusion, None	more
V1349 — Intrusion 05 Intruding Object	00	No Intrusion, None	more
V1350 — Intrusion 05 Assoc Event Number	0	No Intrusion, None	more
V1351 — Intrusion 05 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1352 — Intrusion 05 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1353 — Intrusion 05 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more

V1354 — Intrusion 05 Occupant Number	00	No contact or no intrusion	more
V1355 — Intrusion 05 Injury Number	00	No injury or no intrusion	more
V1356 — Intrusion 05 Occupant Number	00	No contact or no intrusion	more
V1357 — Intrusion 05 Injury Number	99	Contact, injury unknown or data not collected	more
V1358 — Intrusion Number 06	00	No Intrusion, None	more
V1359 — Intrusion 06 Occupant Space Number	00	No Intrusion, None	more
V1360 — Intrusion 06 Intruding Object	00	No Intrusion, None	more
V1361 — Intrusion 06 Assoc Event Number	0	No Intrusion, None	more
V1362 — Intrusion 06 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1363 — Intrusion 06 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1364 — Intrusion 06 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1365 — Intrusion 06 Occupant Number	00	No contact or no intrusion	more
V1366 — Intrusion 06 Injury Number	00	No injury or no intrusion	more
V1367 — Intrusion 06 Occupant Number	00	No contact or no intrusion	more
V1368 — Intrusion 06 Injury Number	99	Contact, injury unknown or data not collected	more
V1369 — Intrusion Number 07	00	No Intrusion, None	more
V1370 — Intrusion 07 Occupant Space Number	00	No Intrusion, None	more
V1371 — Intrusion 07 Intruding Object	00	No Intrusion, None	more
V1372 — Intrusion 07 Assoc Event Number	0	No Intrusion, None	more
V1373 — Intrusion 07 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1374 — Intrusion 07 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1375 — Intrusion 07 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1376 — Intrusion 07 Occupant Number	00	No contact or no intrusion	more
V1377 — Intrusion 07 Injury Number	00	No injury or no intrusion	more
V1378 — Intrusion 07 Occupant Number	00	No contact or no intrusion	more
V1379 — Intrusion 07 Injury Number	99	Contact, injury unknown or data not collected	more
V1380 — Intrusion Number 08	00	No Intrusion, None	more
V1381 — Intrusion 08 Occupant Space Number	00	No Intrusion, None	more

V1382 — Intrusion 08 Intruding Object	00	No Intrusion, None	[more](#)
V1383 — Intrusion 08 Assoc Event Number	0	No Intrusion, None	[more](#)
V1384 — Intrusion 08 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	[more](#)
V1385 — Intrusion 08 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	[more](#)
V1386 — Intrusion 08 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	[more](#)
V1387 — Intrusion 08 Occupant Number	00	No contact or no intrusion	[more](#)
V1388 — Intrusion 08 Injury Number	00	No injury or no intrusion	[more](#)
V1389 — Intrusion 08 Occupant Number	00	No contact or no intrusion	[more](#)
V1390 — Intrusion 08 Injury Number	99	Contact, injury unknown or data not collected	[more](#)
V1391 — Intrusion Number 09	00	No Intrusion, None	[more](#)
V1392 — Intrusion 09 Occupant Space Number	00	No Intrusion, None	[more](#)
V1393 — Intrusion 09 Intruding Object	00	No Intrusion, None	[more](#)
V1394 — Intrusion 09 Assoc Event Number	0	No Intrusion, None	[more](#)
V1395 — Intrusion 09 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	[more](#)
V1396 — Intrusion 09 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	[more](#)
V1397 — Intrusion 09 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	[more](#)
V1398 — Intrusion 09 Occupant Number	00	No contact or no intrusion	[more](#)
V1399 — Intrusion 09 Injury Number	00	No injury or no intrusion	[more](#)
V1400 — Intrusion 09 Occupant Number	00	No contact or no intrusion	[more](#)
V1401 — Intrusion 09 Injury Number	99	Contact, injury unknown or data not collected	[more](#)
V1402 — Intrusion Number 10	00	No Intrusion, None	[more](#)
V1403 — Intrusion 10 Occupant Space Number	00	No Intrusion, None	[more](#)
V1404 — Intrusion 10 Intruding Object	00	No Intrusion, None	[more](#)
V1405 — Intrusion 10 Assoc Event Number	0	No Intrusion, None	[more](#)
V1406 — Intrusion 10 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	[more](#)
V1407 — Intrusion 10 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	[more](#)
V1408 — Intrusion 10 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	[more](#)
V1409 — Intrusion 10 Occupant Number	00	No contact or no intrusion	[more](#)
V1410 — Intrusion 10 Injury Number	00	No injury or no intrusion	[more](#)

V1411 — Intrusion 10 Occupant Number	00	No contact or no intrusion	[more](#)
V1412 — Intrusion 10 Injury Number	99	Contact, injury unknown or data not collected	[more](#)
V1413 — Door Intrusion Number 01	88	Not Applicable	[more](#)
V1414 — Door Intrusion Number 01 Cause	8	Not applicable	[more](#)
V1415 — Door Intrusion Number 02	88	Not Applicable	[more](#)
V1416 — Door Intrusion Number 02 Cause	8	Not applicable	[more](#)
V1417 — Door Intrusion Number 03	88	Not Applicable	[more](#)
V1418 — Door Intrusion Number 03 Cause	8	Not applicable	[more](#)
V1419 — Door Intrusion 01 Component	88	Not Applicable	[more](#)
V1420 — Door Intrusion 01 Component Damaged 1	8	Not Applicable	[more](#)
V1421 — Door Intrusion 01 Component Damaged 2	8	Not Applicable	[more](#)
V1422 — Door Intrusion 02 Component	88	Not Applicable	[more](#)
V1423 — Door Intrusion 02 Component Damaged 1	8	Not Applicable	[more](#)
V1424 — Door Intrusion 02 Component Damaged 2	8	Not Applicable	[more](#)
V1425 — Door Intrusion 03 Component	88	Not Applicable	[more](#)
V1426 — Door Intrusion 03 Component Damaged 1	8	Not Applicable	[more](#)
V1427 — Door Intrusion 03 Component Damaged 2	8	Not Applicable	[more](#)
V1428 — Door Intrusion 04 Component	88	Not Applicable	[more](#)
V1429 — Door Intrusion 04 Component Damaged 1	8	Not Applicable	[more](#)
V1430 — Door Intrusion 04 Component Damaged 2	8	Not Applicable	[more](#)

Case Vehicle

Airbag(s)

Variable Number and Name	Code Value	Code Description	Other Options
V1501 — Driver Airbag Equipped	1	Yes	more
V1502 — Driver Airbag Deployed	1	Yes	more
V1503 — Driver Airbag Condition	0	No Damage	more
V1504 — Passenger Airbag Equip	1	Yes	more
V1505 — Passenger Airbag Deployed	1	Yes	more
V1506 — Passenger Airbag Condition	0	No Damage	more
V1507 — Steering Wheel Airbag Tether	1	Yes	more
V1508 — Driver Airbag Marked By Contact	0	No	more
V1509 — Passenger Airbag Tether	0	No	more
V1510 — Passenger Airbag Marked By Contact	0	No	more

Case Vehicle

Interior

Variable Number and Name	Code Value	Code Description	Other Options
V1601 — Left Front Door Damaged	4	Yes, occupant contact	more
V1602 — Right Front Door Damaged	0	No	more
V1603 — Left Front Hardware Damaged	0	No	more
V1604 — Right Front Hardware Damaged	0	No	more
V1605 — Left Front Armrest Damaged	0	No	more
V1606 — Right Front Armrest Damaged	0	No	more
V1607 — Left Front Glass Damaged	0	No	more
V1608 — Right Front Glass Damaged	0	No	more
V1609 — Left Rear Door Area Damaged	0	No	more
V1610 — Right Rear Door Area Damaged	0	No	more
V1611 — Left Rear Hardware Damaged	0	No	more
V1612 — Right Rear Hardware Damaged	0	No	more
V1613 — Left Rear Armrest Damaged	0	No	more
V1614 — Right Rear Armrest Damaged	0	No	more
V1615 — Left Rear Glass Damaged	0	No	more
V1616 — Right Rear Glass Damaged	0	No	more
V1617 — Left Roof Side Rail Damaged	0	No	more
V1618 — Right Roof Side Rail Damaged	0	No	more
V1619 — Left B-pillar Damaged	0	No	more
V1620 — Right B-pillar Damaged	0	No	more
V1621 — Left C-pillar Damaged	0	No	more
V1622 — Right C-pillar Damaged	0	No	more
V1623 — Left D-pillar Damaged	8	Not applicable	more
V1624 — Right D-pillar Damaged	8	Not applicable	more
V1625 — Left Headlining Damaged	0	No	more

V1626 — Right Headlining Damaged	0	No	[more](#)
V1627 — Left Roof Structure Damaged	0	No	[more](#)
V1628 — Right Roof Structure Damaged	0	No	[more](#)
V1629 — Left T/Sun Roof Damaged	8	Not applicable	[more](#)
V1630 — Right T/Sun Roof Damaged	8	Not applicable	[more](#)
V1631 — Other Left Side Item Damagd	8	Not applicable	[more](#)
V1632 — Other Right Side Item Damagd	8	Not applicable	[more](#)
V1633 — Foot Controls Damaged	0	No	[more](#)
V1634 — Ignition Key Damaged	0	No	[more](#)
V1635 — Rear View Mirror Damaged	0	No	[more](#)
V1636 — Sunvisor/Fitting Damaged	0	No	[more](#)
V1637 — Windshield Molding Damaged	0	No	[more](#)
V1638 — Left A-pillar Damaged	0	No	[more](#)
V1639 — Right A-pillar Damaged	0	No	[more](#)
V1640 — Center Console Damaged	0	No	[more](#)
V1641 — Transmission Lever Damaged	0	No	[more](#)
V1642 — Horn/Spoke Shroud Damagd	0	No	[more](#)
V1643 — Upper Panel Damaged	0	No	[more](#)
V1644 — Mid Panel Damaged	0	No	[more](#)
V1645 — Lower Panel Damaged	3	No, occupant contact	[more](#)
V1646 — Ashtray Damaged	0	No	[more](#)
V1647 — Control Knob/Lever Damaged	0	No	[more](#)
V1648 — Glove Compartment Area Damaged	0	No	[more](#)
V1649 — Instruments Damaged	0	No	[more](#)
V1650 — Park Brake Release Damaged	0	No	[more](#)
V1651 — Park Brake Pedal Damaged	0	No	[more](#)
V1652 — A/C Or Upper Vent Damaged	0	No	[more](#)
V1653 — Heater Or A/C Duct Damaged	0	No	[more](#)
V1654 — Radio Damaged	0	No	[more](#)

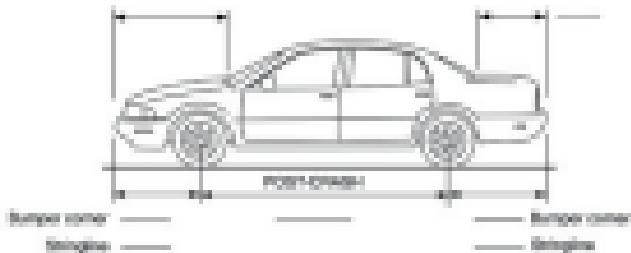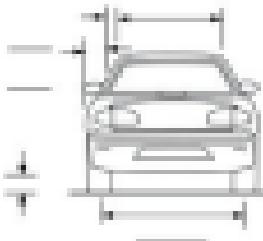|				
V1655 — Other Item Damaged	8	Not applicable		more
V1656 — Rear Window Damaged	0	No		more
V1657 — Rear Window Header Damaged	0	No		more
V1658 — Vertical Console Damaged	0	No		more
V1659 — Roof Console Damaged	8	Not applicable		more

Case Vehicle

Seats

Variable Number and Name	Code Value	Code Description	Other Options
V1701 — Driver Front Seat Type	05	Bucket	more
V1702 — Passenger Front Seat Type	05	Bucket	more
V1703 — Driver Seat Mount Type	1	Standard	more
V1704 — Passenger Seat Mount Type	1	Standard	more
V1705 — Driver Swivel Mechanism Equipped	0	No	more
V1706 — Passenger Swivel Mechanism Equipped	0	No	more
V1707 — Driver Seat Original Equipment	1	Yes	more
V1708 — Passenger Seat Original Equipment	1	Yes	more
V1709 — Driver Seat/Rear Occupant Contact	8	Not applicable	more
V1710 — Passenger Seat/Rear Occupant Contact	8	Not applicable	more
V1711 — Driver Seat Damage	0	None	more
V1712 — Passenger Seat Damage	0	None	more
V1713 — Center Front Armrest Damaged	8	Not applicable (no center armrest)	more
V1714 — Driver Seat Rotation	0	None apparent	more
V1715 — Passenger Seat Rotation	0	None apparent	more
V1716 — Driver Seat-back Type	3	Reclining	more
V1717 — Passenger Seat-back Type	3	Reclining	more
V1718 — Driver Seat-back Lock Type	1	Manual	more
V1719 — Passenger Seat-back Lock Type	1	Manual	more
V1720 — Driver Seat-back Lock Held	1	Yes	more
V1721 — Passenger Seat-back Lock Held	1	Yes	more
V1722 — Driver Recliner Mechanism Held	1	Yes	more

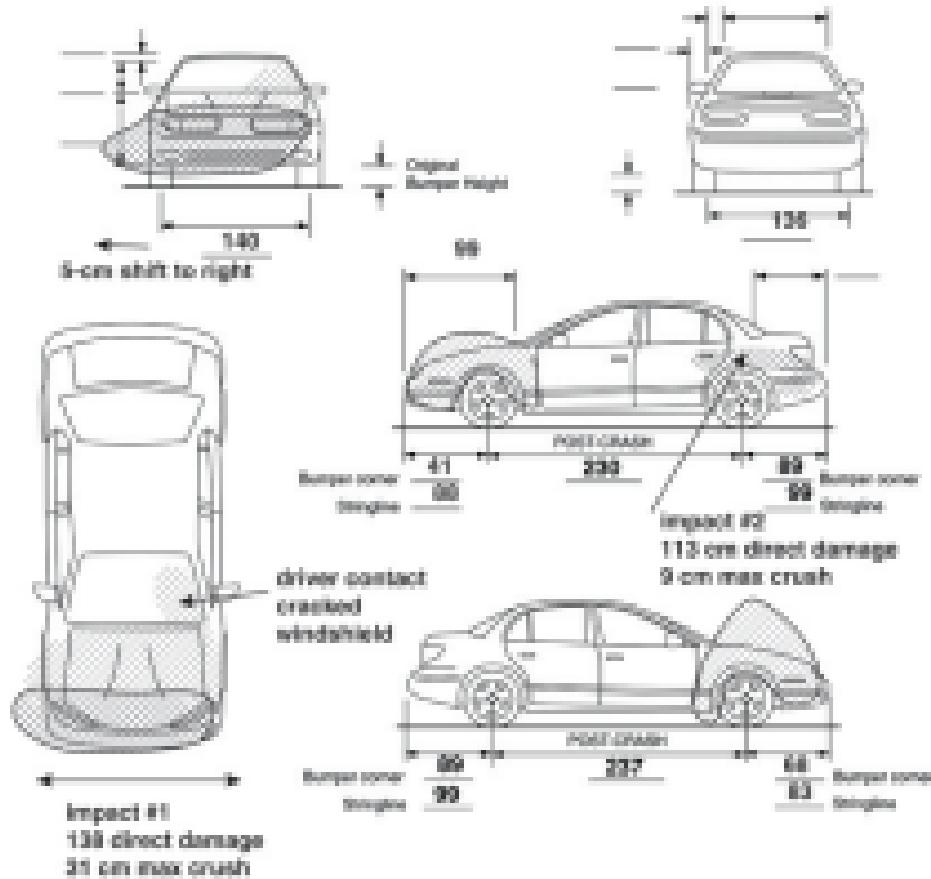|			
V1723 — Passenger Recliner Mechanism Held	1	Yes	more
V1724 — Driver Head Restraint Type	2	Integral	more
V1725 — Passenger Head Restraint Type	2	Integral	more
V1726 — Driver Head Rest Removed	8	Not applicable	more
V1727 — Passenger Head Rest Removed	8	Not applicable	more
V1728 — Driver Head Rest Adjustment	8	Not applicable	more
V1729 — Passenger Head Rest Adjustment	8	Not applicable	more
V1730 — Driver Head Rest Damage	0	None	more
V1731 — Passenger Head Rest Damage	0	None	more
V1732 — Driver Seat Adjustment Type	1	Manual	more
V1733 — Passenger Seat Adjustment Type	1	Manual	more
V1734 — Driver Seat Adjustment Provided	1	2-way	more
V1735 — Passenger Seat Adjustment Provided	1	2-way	more
V1736 — Driver Seat Adjuster Damage	0	None	more
V1737 — Passenger Seat Adjuster Damage	0	None	more
V1738 — Driver Seat Adjuster Separation	8	Not applicable	more
V1739 — Passenger Seat Adjuster Separation	8	Not applicable	more
V1740 — Driver Seat Pre-crash Position	3	Rearward	more
V1741 — Passenger Seat Pre-crash Position	3	Rearward	more
V1742 — Left Rear Seat Type	6	Luggage area access panel	more
V1743 — Right Rear Seat Type	6	Luggage area access panel	more
V1744 — Left Rear Seat Damaged	0	None	more
V1745 — Right Rear Seat Damaged	0	None	more
V1746 — Center Rear Armrest Damaged	8	Not applicable (No Center Armrest)	more
V1747 — Left Rear Seat-back Left Lock Equipped	1	Yes	more

V1748 — Right Rear Seat-back Left Lock Equipped	0	No	[more](#)
V1749 — Left Rear Seat-back Left Lock Held	1	Yes	[more](#)
V1750 — Right Rear Seat-back Left Lock Held	8	Not applicable	[more](#)
V1751 — Left Rear Seat-back Right Lock Equipped	0	No	[more](#)
V1752 — Right Rear Seat-back Right Lock Equipped	1	Yes	[more](#)
V1753 — Left Rear Seat-back Right Lock Held	8	Not applicable	[more](#)
V1754 — Right Rear Seat-back Right Lock Held	1	Yes	[more](#)
V1755 — Left 3rd Seat Equipped	0	No	[more](#)
V1756 — Right 3rd Seat Equipped	0	No	[more](#)
V1757 — Left 3rd Seat Backrest Damaged	8	Not applicable	[more](#)
V1758 — Right 3rd Seat Backrest Damaged	8	Not applicable	[more](#)
V1759 — Left 3rd Seat Cushion Damaged	8	Not applicable	[more](#)
V1760 — Right 3rd Seat Cushion Damaged	8	Not applicable	[more](#)
V1761 — Rear Head Restraints	1	Equipped	[more](#)

MEASUREMENTS IN CENTIMETERS

NO INSPECTION

Original Bumper Height

POSITION(S)1

Bumper corner

Sightglass

Bumper corner

Sightglass

POSITION(S)2

Bumper corner

Sightglass

Bumper corner

Sightglass

MEASUREMENTS IN CENTIMETERS

8-cm shift to right

Original bumper height

140

Impact #1
driver contact cracked windshield

Impact #1
138 direct damage
31 cm max crush

Bumper corner

Bumper corner

Impact #2
113 cm direct damage
9 cm max crush

POST CRASH

230

POST CRASH
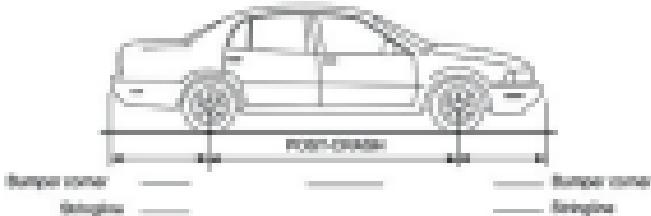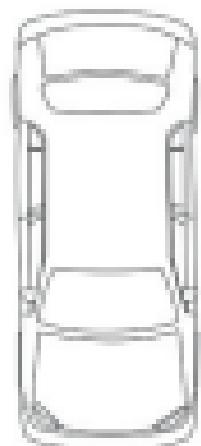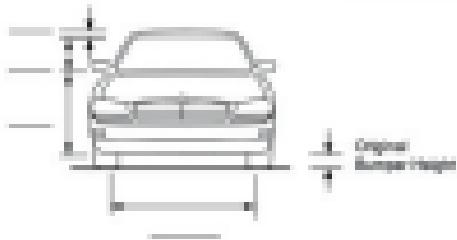
WINDSHIELD MARK ON CASE VEHICLE:

LAMISAFE

AP TECH

M314 AS1

DOT 376

DRIVER HAND CONTACT

26

17
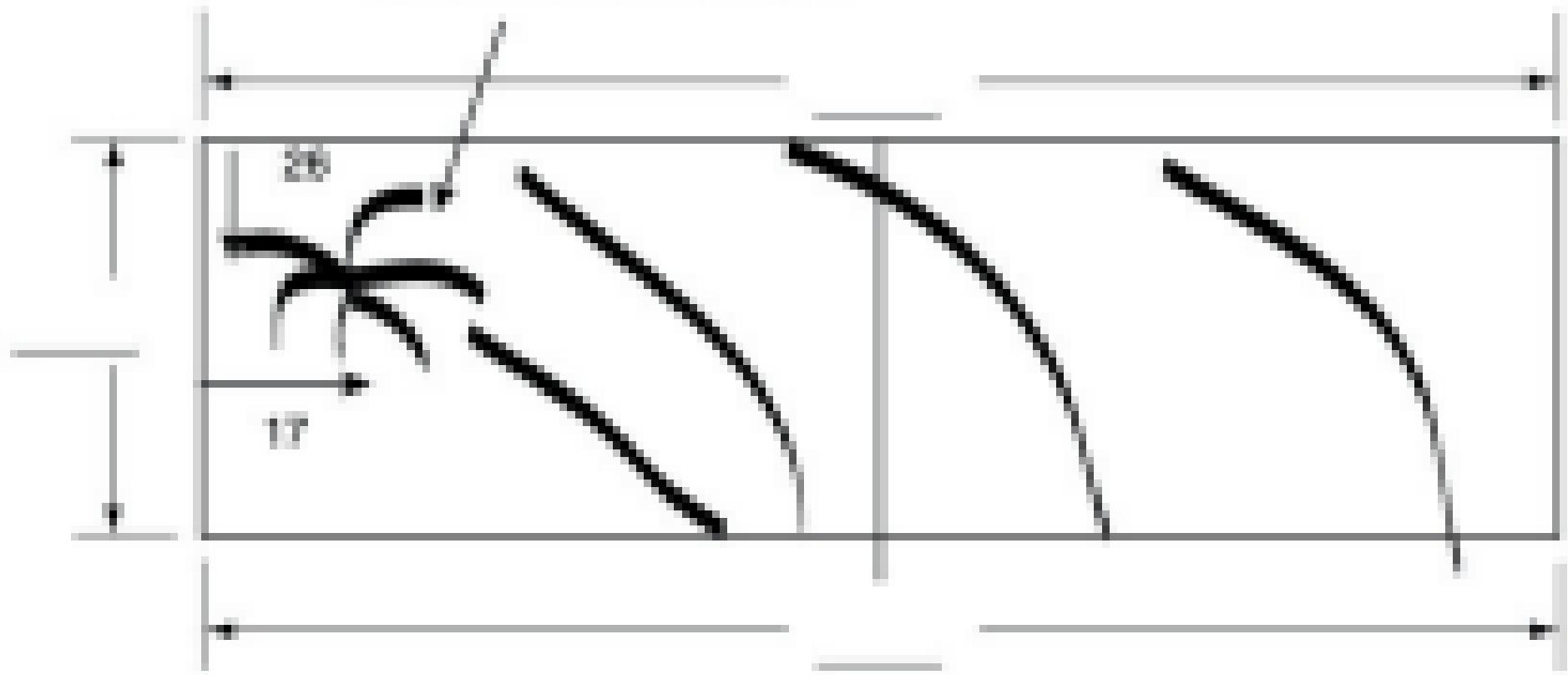
INTRUSION IT-1

Location of Intrusion	Intruded Component	(All Measurements Are in Centimeters)					Dominant Crush Direction
		Comparison Value	–	Intruded Value	=	Intrusion	
11	toepan	65	–	60	=	5	to rear
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		

OCCUPANT CONTACT WORKSHEET

Contact	Interior Component Contacted	Occupant No. if Known	Body Region if Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	A-pillar	1	hand	3x3-cm scuff	1
B	windshield	1	hand	crack in glass	1
C	steering wheel	1	chest	deformed up and to the left	1
D	door panel	1	leg	8x5-cm scuff, crack	1
E	knee bolster	1	knee/leg	11x4-cm scuff, 8x2-cm scuff	1
F					
G					
H					
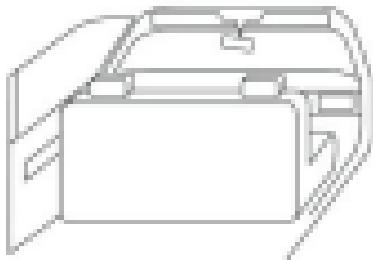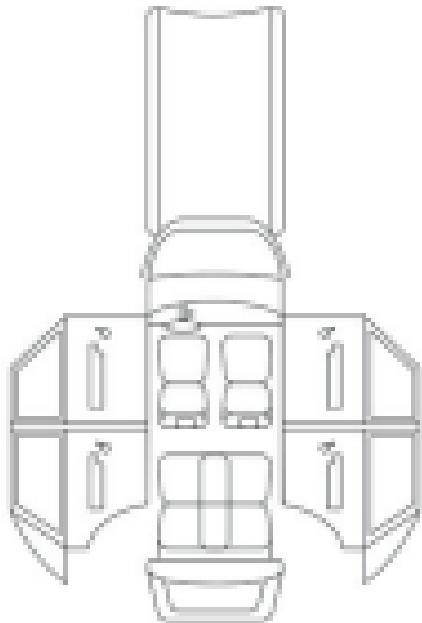
no evidence of belt use
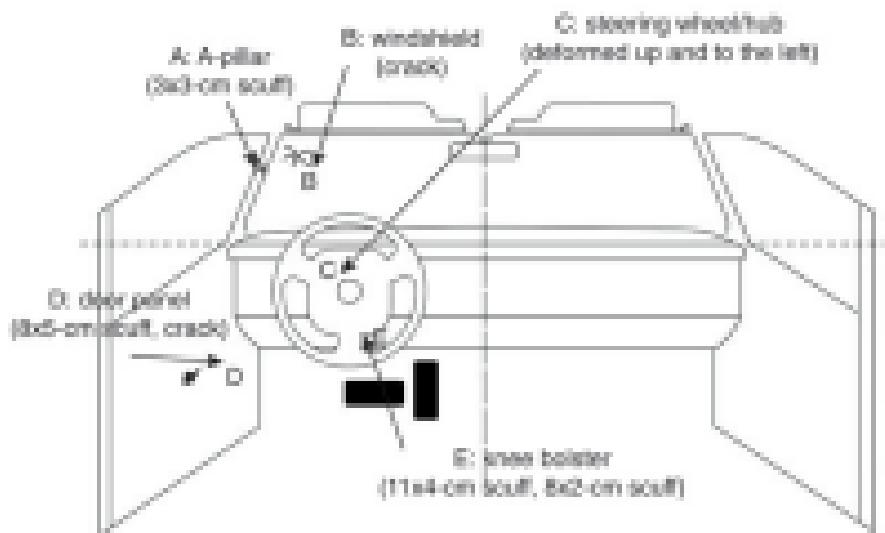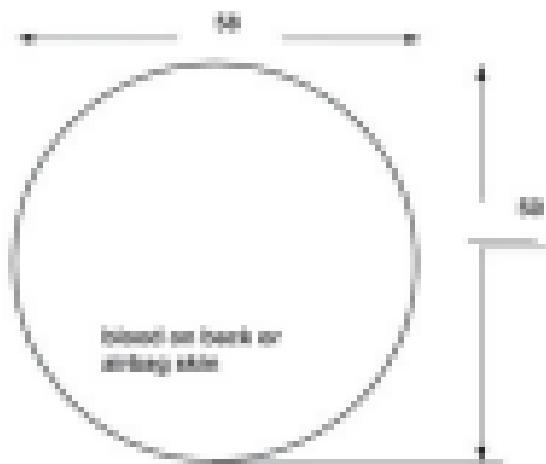
A: A-pillar (3x3-cm scuff)

B: windshield (crack)

C: steering wheel/hub (deformed up and to the left)

D: door panel (8x5-cm scuff, crack)

E: knee bolster (11x4-cm scuff)

AIRBAG NUMBER ON DRIVER SIDE:

Driver Airbag

PE549180X-00
TB560XXXX0-0X

blaued on back or
airbag side

Driver Airbag 8mm

Notes: Section 1
1 6 yes, how many

Notes: Section 1
1 6 yes, how many

Passenger Airbag

Passenger Airbag Doors

Single Door

76

62

Vents — + —
If yes, enter size

Tethers — + —
If yes, enter size
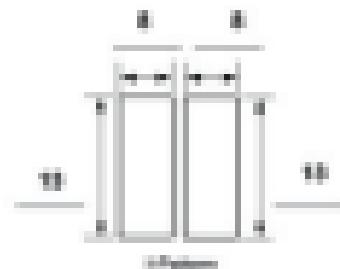
Case # 304: Occupant # 1; Injury # 1

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	01	Injury #1	[more](#)
V2102 — 1st Prob Contact Area	12	Windshield	[more](#)
V2103 — 2nd Prob Contact Area	87	Air cushion skin "airbag"	[more](#)
V2104 — Primary OIC -body Region	18	Forearm	[more](#)
V2105 — Primary OIC -aspect	12	Left	[more](#)
V2106 — Primary OIC -lesion	06	Fracture	[more](#)
V2107 — Primary OIC -system/Organ	19	Skeletal	[more](#)
V2108 — Primary OIC -severity	3	Serious	[more](#)
V2109 — Primary OIC	RLFS3	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	[more](#)
V2111 — Assoc OIC 1 -aspect	99	No injury	[more](#)
V2112 — Assoc OIC 1 -lesion	99	No injury	[more](#)
V2113 — Assoc OIC 1 -system/Organ	99	No injury	[more](#)
V2114 — Assoc OIC 1 -severity	9	Unknown	[more](#)
V2115 — Assoc OIC 1	—	—	—

Case # 304: Occupant # 1; Injury # 2

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	02	Injury #2	more
V2102 — 1st Prob Contact Area	12	Windshield	more
V2103 — 2nd Prob Contact Area	87	Air cushion skin "airbag"	more
V2104 — Primary OIC -body Region	18	Forearm	more
V2105 — Primary OIC -aspect	12	Left	more
V2106 — Primary OIC -lesion	06	Fracture	more
V2107 — Primary OIC -system/Organ	19	Skeletal	more
V2108 — Primary OIC -severity	2	Moderate	more
V2109 — Primary OIC	RLFS2	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 304: Occupant # 1; Injury # 3

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	03	Injury #3	more
V2102 — 1st Prob Contact Area	28	Foot controls (including parking brake pedal)	more
V2103 — 2nd Prob Contact Area	40	Floor	more
V2104 — Primary OIC -body Region	12	Leg (lower)	more
V2105 — Primary OIC -aspect	18	Right	more
V2106 — Primary OIC -lesion	06	Fracture	more
V2107 — Primary OIC -system/Organ	19	Skeletal	more
V2108 — Primary OIC -severity	2	Moderate	more
V2109 — Primary OIC	LRFS2	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 304: Occupant # 1; Injury # 4

Variable Number and Name	Code Value	Code Description	Other Options
V2101 — Injury Number	04	Injury #4	more
V2102 — 1st Prob Contact Area	28	Foot controls (including parking brake pedal)	more
V2103 — 2nd Prob Contact Area	40	Floor	more
V2104 — Primary OIC -body Region	12	Leg (lower)	more
V2105 — Primary OIC -aspect	18	Right	more
V2106 — Primary OIC -lesion	06	Fracture	more
V2107 — Primary OIC -system/Organ	19	Skeletal	more
V2108 — Primary OIC -severity	3	Serious	more
V2109 — Primary OIC	LRFS3	—	—
V2110 — Assoc OIC 1 -body Region	99	No injury	more
V2111 — Assoc OIC 1 -aspect	99	No injury	more
V2112 — Assoc OIC 1 -lesion	99	No injury	more
V2113 — Assoc OIC 1 -system/Organ	99	No injury	more
V2114 — Assoc OIC 1 -severity	9	Unknown	more
V2115 — Assoc OIC 1	—	—	—

Case # 304: Occupant # 1

Variable Number and Name	Code Value	Code Description	Other Options
V2001 — Occupant Number	01	Occupant #1	more
V2002 — Occupant Role At 1st Impact	1	Motor vehicle driver	more
V2003 — Occupant Position -row	1	1st row	more
V2004 — Occupant Position -lateral	1	Left	more
V2005 — Occupant Position -posture	10	Sitting on seat	more
V2006 — Occupant Age In Years	56	—	—
V2007 — Occupant Age In Months	25	25 months or older	more
V2008 — Occupant Mass	104 kg	—	—
V2009 — Occupant Height	168 cm	—	—
V2010 — Occupant Sex	1	Male	more
V2011 — Occupant Treatment/Mortality	04	Hospitalized over 24 hrs or for significant treatment	more
V2012 — Injury Severity Score	09	ISS 9	more
V2013 — Non-impact Med Condition	0	None	more
V2014 — Police Injury Severity	3	A - Incapacitating Injury	more
V2015 — Active Restraint System	3	Both lap belt and shoulder harness	more
V2016 — Active Restraint Usage	0	None (available but not used)	more
V2017 — Passive Restraint System	1	Air bag installed	more
V2018 — Passive Restraint Usage	2	Air bag deployed	more
V2019 — Child Seat Type	88	Not applicable (adult or older child)	more
V2020 — Occupant Ejection Degree	0	None	more
V2021 — Occupant Ejection Area	98	Not applicable (not ejected)	more
V2022 — Highest OIC Severity	3	Serious	more

V2023 — Head Restraint Available	1	Equipped	more
V2024 — Occupant Eyewear	9	Unknown	more
V2025 — Source of Occupant Info	1	Hospital	more